



U.S. Department
of Transportation

Research and
Special Programs
Administration

FEB 29 2000

400 Seventh Street, S.W.
Washington, D.C. 20590

DOT-E 7721
(THIRD REVISION)

EXPIRATION DATE: February 28, 2002

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Applied Companies
Valencia, CA
2. PURPOSE AND LIMITATIONS:
 - a. This exemption authorizes the manufacture, mark, sale and use of a non-DOT specification cylinder conforming with all regulations applicable to a DOT specification 39 cylinder, except as specified herein, for the transportation in commerce of the materials authorized by this exemption. This exemption provides no relief from any Hazardous Materials Regulation (HMR) other than as specifically stated herein.
 - b. The safety analyses performed in development of this exemption only considered the hazards and risks associated with transportation in commerce.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171- 180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR §§ 173.302(a)(4) and 175.3 in that a non-DOT specification cylinder is authorized.
5. BASIS: This exemption is based on the application of Applied Companies dated December 15, 1999, submitted in accordance with § 107.109.

FEB 29 2000

Continuation of DOT-E (3rd Rev.)

Page 2

6. HAZARDOUS MATERIALS (49 CFR § 172.101):

| Proper Shipping Name/ Hazardous Material Description | Hazard Class/ Division | Identi- fication Number | Packing Group |
|---|------------------------------|-------------------------------|------------------|
| Argon, compressed | 2.2 | UN1006 | n/a |
| Helium, compressed | 2.2 | UN1046 | n/a |
| Nitrogen, compressed | 2.2 | UN1066 | n/a |

7. SAFETY CONTROL MEASURES:

a. PACKAGING - Packaging prescribed is a welded or seamless, non-refillable, non-DOT specification steel cylinders (including spheres and toroids) made as described in specifications on file with the Office of Hazardous Materials Exemptions and Approvals (OHMEA) and in compliance with DOT specification 39, except as follows:

§ 178.35(b) *Inspections and analyses*

Applies except an independent inspection agency must be approved in writing by the Associate Administrator for Office of Hazardous Materials Safety.

§ 178.35(c) *Duties of inspector*

(1) and (2) * * *

(3) Add

(ix) Independent inspector must verify proper heat treatment after welding and prior to test.

(4) * * *

FEB 29 2000

Continuation of DOT-E (3rd Rev.)

Page 3

§ 178.65(a)(1) *Size limitation*

Maximum water capacity must not exceed 25 cu. inches and marked service pressure must not exceed 85% of the test pressure. Maximum service pressure must not exceed 6,000 psig.

§ 178.65(b) *Materials*

The steel analysis must conform to the requirements in § 178.44(b) (steel specification for DOT 3HT).

§ 178.65(d) *Wall thickness*

The minimum wall thickness must be such that the wall stress at test pressure does not exceed either the yield strength of the material of the finished cylinder wall or 110,000 psi, whichever is greater.

* * *

§ 178.65(f) *Pressure tests*

Applies except that substitute 2.36 times for 2.0 times in paragraph (2)(i).

§ 178.65(g) *Flattening test*

(1) and (2) * * *

(3) Applies except flattening between flat plates is authorized.

(4) Cylinders or test rings must not crack when flattened so their outer surfaces are not more than ten times wall thickness apart.

(5) * * *

§ 178.65(i) *Marking*

Applies except cylinders must be marked "DOT-E 7721" instead "DOT 39".

FEB 29 2000

b. OPERATIONAL CONTROLS - Cylinders must be shipped in strong outside packagings in accordance with §173.301(k). Package must be capable of withstanding a twelve foot drop onto solid concrete without damage to the pressure vessel or leakage of gas.

8. SPECIAL PROVISIONS:

a. In accordance with the provisions of Paragraph (b) of § 173.22a, persons may use the packaging authorized by this exemption for the transportation of the hazardous materials specified in paragraph 6, only in conformance with the terms of this exemption.

b. A person who is not a holder of this exemption, but receives a package covered by this exemption, may reoffer it for transportation provided no modifications or changes are made to the package and it is offered for transportation in conformance with this exemption and the HMR.

c. A current copy of this exemption must be maintained at each facility where the package is offered or reoffered for transportation.

d. Each packaging manufactured under the authority of this exemption must be marked with a registration symbol designated by the Office of Hazardous Materials Exemptions and Approvals for a specific manufacturing facility.

e. A current copy of this exemption must be maintained at each facility where the package is manufactured under this exemption. It must be made available to a DOT representative upon request.

f. Packages specified herein marked "DOT SP 6672" prior to the issuance of this exemption may be transported under the terms of this exemption.

g. A copy of the inspector's report on the initial shipment under this exemption must be submitted to the OHMEA within 30 days after shipment.

FEB 29 2000

Continuation of DOT-E (3rd Rev.)

Page 5

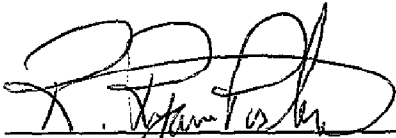
9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle, rail freight and cargo aircraft only.
10. MODAL REQUIREMENTS: A current copy of this exemption must be carried aboard each aircraft used to transport packages covered by this exemption. The shipper shall furnish a copy of this exemption to the air carrier before or at the time the shipment is tendered.
11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this exemption and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 et seq:
- o All terms and conditions prescribed in this exemption and the Hazardous Materials Regulations, Parts 171-180.
 - o Registration required by § 107.601 et seq., when applicable.

Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this exemption must receive training on the requirements and conditions of this exemption in addition to the training required by §§ 172.700 through 172.704.

No person may use or apply this exemption, including display of its number, when the exemption has expired or is otherwise no longer in effect.

12. REPORTING REQUIREMENTS: The carrier is required to report any incident involving loss of packaging contents or packaging failure to the Associate Administrator for Hazardous Materials Safety (AAHMS) as soon as practicable. (Sections 171.15 and 171.16 apply to any activity undertaken under the authority of this exemption.) In addition, the holder(s) of this exemption must also inform the AAHMS, in writing, as soon as practicable of any incidents involving the package and shipments made under this exemption.

Issued at Washington, D.C.



for Robert A. McGuire
Acting Associate Administrator for
Hazardous Materials Safety

FEB 29 2000

(DATE)

Address all inquiries to: Associate Administrator for
Hazardous Materials Safety, Research and Special Programs
Administration, Department of Transportation, Washington, D.C.
20590. Attention: DHM-31.

The original of this exemption is on file at the above office.
Photo reproductions and legible reductions of this exemption
are permitted. Any alteration of this exemption is
prohibited.

Copies of exemptions may be obtained from the AAHMS, U.S.
Department of Transportation, 400 7th Street, S.W.,
Washington, DC 20590-0001, Attention: Records Center, 202-366-
5046.

Dist: FAA, FHWA, FRA
PO: KFW